



VERSANT™ ADVANCED VOICE TECHNOLOGY

Breakthrough Technology Delivers Exceptionally Clear Voice Communication. Anytime, Anywhere.

Versant™ advanced voice technology from Knowles is **the most advanced audio solution** that optimizes the user's voice in noisy environments, such as wind or crowds.

UNIQUE FEATURES

Versant is a ground-breaking technology that actively recognizes loud environments and adapts the performance to optimize the user's voice while minimizing the environmental noise. Versant offers clear advantages over existing approaches to voice in noise and wind, including enabling smaller, more elegant product designs that consumers will want to wear.

HIGHLIGHTS INCLUDE:

- ▶ Ability to conduct clearer calls in noise environments
- ▶ Enables freedom for hands-free voice control in noisy environments
- ▶ Applications for health, fitness, sports and other activities

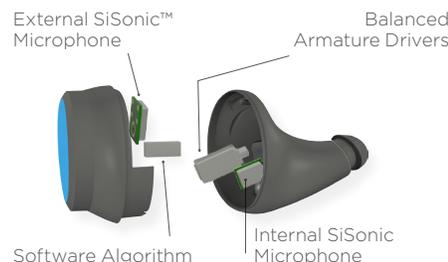
RADICALLY IMPROVE YOUR VOICE COMMUNICATION

The demand for hands-free control of a device is increasing at a rapid pace. Versant is a superior voice technology, which successfully reduces the impact of noise, significantly improving headset-based calling and enabling voice controlled interaction (e.g. talk-to-text, digital assistants, etc.).

PROPRIETARY SOLUTION USING A UNIQUE COMBINATION OF:

- ▶ Multiple internal and external high-performance SiSonic™ MEMS microphones
- ▶ Best-in-class noise suppression algorithm

HARDWARE & SOFTWARE



THE VERSANT ADVANTAGE

- ▶ Versant uses a combination of SiSonic microphones and a **best-in-class** algorithm to detect the user's voice and the environment noise.
- ▶ With at least one microphone facing the outside world and another in the ear canal, Versant is the **most advanced solution for hearables and premium earphones**, merging Knowles expertise in acoustics, audio engineering, signal processing and algorithm development.
- ▶ When the environmental noise reaches a level that is deemed disruptive to the call, the microphones capture the user's voice, while an advanced processor and algorithm optimize the use of the most desirable audio. This innovation allows the technology to deliver the user's clear voice to the listener or a voice controlled application despite noise in the caller's surroundings.
- ▶ The engineered solution, with multiple patents pending, is typically paired with a very small, high performance balanced armature speaker to reduce the overall size and power consumption.

